

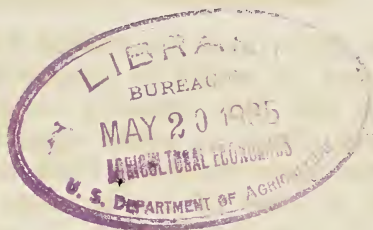
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES
DEPARTMENT OF THE INTERIOR
SOIL EROSION SERVICE

OFFICIAL BUSINESS

PENALTY FOR PRIVATE
USE TO AVOID PAY*
MENT OF POSTAGE
\$300.00--6-8350



SOIL EROSION SERVICE

UNITED STATES DEPARTMENT OF THE INTERIOR

ELM CREED WATERSHED--CENTRAL TEXAS

NEWS LETTER-----NO. 3

TEMPLE, TEXAS

AUGUST, 1934.

Soil Erosion Service

Fletcher Bldg.

Temple, Texas.

News Letter

No. 3

August, 1934

North Elm Area Enters Erosion Program

In our July issue we stated that because of an increased allotment it would be possible to include an additional area in the Soil Erosion Program. North Elm and South Elm were given an equal opportunity to enter the program, with the understanding that the area which first signed up 85% or more of its acreage was assured of help from the Soil Erosion Service in controlling erosion. North Elm completed the signing up of 85% of the farmers some two weeks ago and work in the watershed has already started. Men have been planning farms and running lines in this area for ten days or more. South Elm has not yet signed up. Even though 85% of the farmers in this area do agree to cooperate with the Soil Erosion Service no promise can be made that their area will be included in the program. Lack of funds may prohibit including this area, however they will be in line when the required 85% of the farmers in the watershed sign up, and should funds be available this area will be included in the program.

Economic Survey

The Soil Erosion Service has started an Economic Survey on the farms in the Elm Creek Watershed. The purpose of this study or survey is to show the results, from an economic standpoint, of the erosion control work being done in this area. The survey is under the direction of Mr. C.H. Bates, assisted by Dudley T. Mann, new members of our staff.

There will be several phases to the survey. The cotton staple study, which has already been started, is an attempt to determine whether or not the additional moisture held in the soil by terraces will increase the staple length of cotton grown on terraced land. The other

work will be a farm survey which will include inventories of stock, implements, buildings, productivity of the soil, and financial and social conditions on the farm. We will also furnish farm record books to a number of farmers who want to keep annual records on their farms and these records will be used as a part of the Economic Study. Anyone desiring to cooperate with us by keeping a complete record of his farm can communicate with us and we will explain the program.

Strip Cropping

Strip cropping, in connection with erosion control, means the planting of strips of thick growing feed crops at intervals across the slope. The strips should be on the contour and the clean cultivated crops planted between the strips in rows parallel to them. Strip cropping is an effective means of erosion control when properly practiced. It is especially suited to general farming where livestock is included in the farm setup and certain definite rotations are practiced. The erosion resisting crops (feed crops) should vary in width according to the slope. They may range from 35 to 100 feet in width, and the row crops between the strips from 65 to 100 feet in width. There is less soil and water loss, when crops are on the ground, under strip cropping conditions than under terracing conditions when strip cropping is not practiced. A combination of both terracing and strip cropping is the best means of erosion control known.

The effectiveness of strip cropping in preventing erosion is in the fact that the strip checks the momentum of the runoff water, causes silting of the soil and increases the absorption of water on the field.

Explaining further a strip cropping system, let's consider an average 100 acre field that has 2% to 3% slope. There would be, or should be, about 15 acres in pasture. This leaves 85 acres in cultivation. There would

would be about 40 acres in cotton and about 20 in corn, a total of 60 acres or 70% of the cultivated field in row crops. 30% could then be planted in erosion resisting crops such as oats, sudan, cane or grain sorghums. These feed crops, or erosion resisting crops, would be planted in 30 foot strips with 70 feet of row crops between the strips, which would give approximately the acreage wanted in cotton and feed crops.

If the grain sorghum, cane or sudan crops are planted in rows they will not control erosion as effectively as if sown broadcast. Oats being a winter crop and coming off in the spring, it would be best if the oat strips were alternated with the sorghum and sudan strips so there will be erosion resisting crops in the field both winter and summer. The crops, of course, should be rotated. The man who plants about 50% of his farm in feed crops has an excellent opportunity to practice strip cropping and get maximum protection, as the strips in erosion resisting crops will be wide.

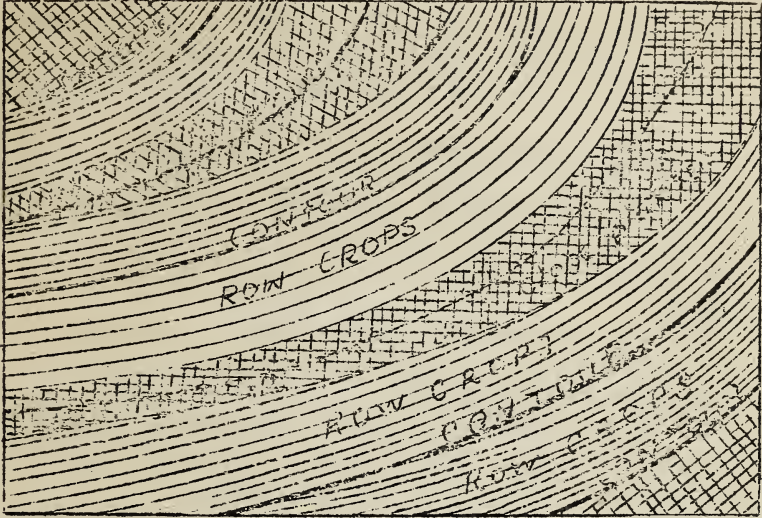
The farmer who raises livestock and needs a lot of feed can plant his farm in contour fields to correspond to the rotation. The number of contour plots should correspond to the number of years in the rotation. The plots would then be large, giving maximum erosion control results. A green manure crop, preferably a legume, if the soil is free from the root rot disease, should be considered in the rotation. A winter legume planted on the strip would give protection and if turned under would help improve the soil. Hairy vetch, a winter legume, is adapted to this section, but must be turned under early in order to get the land in shape for a summer crop.

Strip cropping offers an opportunity to eliminate point rows by making the strips of broadcast crops variable in width so that the upper and lower edges of the strips are parallel to the terrace or contour line, as the case

might be, above and below the strip.

Following is an illustration of a strip cropped field eliminating point rows:

Contour or terrace lines approximately 100 feet apart



Gully and Ditch Control

The CCC enrollees are doing excellent work constructing permanent erosion check dams and spillways. These men are not completing all of the fill work that is required around the structures and at the end of the terraces, but are only building enough levees to protect the spillways until the farmer can complete the fill work with a Fresno. The only tools which the CCC men have for this work are shovels and therefore they can only afford to give the structures temporary protection.

It is very essential that the farmers completely protect their spillways as soon as possible so that they will not wash out in case of a heavy rain.

In order to prevent cracks from forming it would be well to plant or sod grass on all the fill work near the structure. With this precaution there is less chance for the water to wash around the structure and the maintenance required is reduced to a minimum.

Let's not forget that vegetative control is the most effective and permanent type of erosion control and let us use it in every way possible.

Progress Report as of July 31st, 1934

1. 460 farmers have signed contracts to cooperate with the Soil Erosion Service.
2. 52,444 acres are included in the 460 farms signed up.
3. 350,134 feet of terrace lines were run during the month of July. Total feet of lines run up to July 31st is 2,827,483.
4. 780,177 feet of terraces were constructed during the month of July. Total feet of terraces constructed up to July 31st is 1,124,988.
5. 222 dams or spillways for gully control and terrace outlet protection were constructed during the month of July. Total dams up to July 31st is 618.
6. 120 more graders have been ordered for terrace construction. With the 50 graders already in the field there will be a total of 170 when the additional allotment arrives.
7. 25 more fresnoes have been ordered for making terrace fills. With the twenty five fresnoes already in the field this will make a total of 50.

Test Plots Being Installed

Test plots on three farms about four miles southwest of Moody are being installed to show the soil losses which occur on cultivated fields and pasture lands.

Two plots are completed on the T.B. Lewis farm,

located about 4 miles south of Moody on pasture land. Each plot is about 1/12 of an acre. One plot is protected from overgrazing, the other will be grazed according to common practice. Tanks at ends of the plots catch the water and soil losses so that the farmer can see the difference in soil losses on the plots.

Installation of a catch tank on an 8 acre cultivated field to show soil and water losses will also be installed on a farm near Moody.

Farmers are urged to avail themselves of the opportunity to inspect these plots after rains so that they may see the losses which occur on fields when not protected from erosion.

Model Farm Displays

The Soil Erosion Service secured the services of Mr. M.F. Thurmond, Professor in Farm Shop Work, Tex. A & M College, to make model farms showing eroded fields and how they should be protected from erosion. He is assisted by A.L. Thompson, student of A & M. A huge display 24 ft. by 9 ft. is being prepared for the State Fair at Dallas. Farmers and others interested are cordially invited to see these displays in the basement of the Fletcher Bldg., Temple, Texas.

— — — — —

EROSION

Herdes of gullies now remind us
We should build our lands to stay,
And, departing, leave behind us
Fields that have not washed away;
When our boys assume the mortgage
On the land that's had our toil,
They'll not have to ask the question:
"Here's the farm, but WHERE'S the
SOIL?"

T.V.A.



"W'en you heahs a man runnin' down p'int
rows b'tween terraces and sayin' he won't
work 'em-----, he most gin'ally right about
it.----In a few yeahs he won't be workin'
no rows atall."